Editorial Index

Elastomerics

Volume 122-1991 — Numbers 1-12

Editor's note: This year's index covers material from the January 1991 through December 1991 issues of Elastomerics. *Each entry is followed by the month and the page number of the issue in which it appears.*

Articles can be found under the Article subject heading and other appropriate subject headings. Authors are listed under the Author subject heading. Trends are listed in that subject heading and appropriately cross-referenced.

Subject headings include Articles, Authors, Automotive, Carbon Black, Chemicals and Materials, Custom Mixing, Editor's Desk, End Products, Environment, Equipment, Euronews, Expansions, IISRP, Last Word, Literature, Market Studies, Meetings, Mergers, Natural Rubber, Polyurethane Manufacturers Association (PMA), Polyurethanes, Quality, Recycling, Roofing, Rubber Division ACS, Rubber Manufacturers Association (RMA), Thermoplastic Elastomers, Tires and Trends.

A

ARTICLES, FEATURE

Analysis of rubber under strain from an engineering perspective — *Hertz, Daniel L.* ..... Dec 14

Automating batch control systems improves quality and increases efficiency — *Wenstrup, Robert* ..... Mar 32

Automobile truck tires adapt to increasingly stringent requirements — *Dunn, J.R., and Jones, R.H.* ..... Jul 11

Buffer storage system provides FIFO rotation of rubber tape stock — ..... Jul 25

Carbon black is a fractal object: an advanced look at an important filler — *Gerspacher, Michel, and O'Farrell, Charles P.* ..... Apr 35

Clevite's automated mixing system improves quality, cost and reliability — *Brainard, Gary L., and Sok, Robert M.* Jun 16

Computers offer savings, diversity in formulating elastomeric compounds — *Hermansen, Ralph D.* ..... Dec 22

Continuous Improvement methods stand out in "New Age" of quality control — *Del Vecchio, R.J.* ..... Nov 23

Design of castable PU parts requires precise materials characterization — *Palinkas, Richard* ..... Apr 24

DMA provides characterization of damping and elastomeric properties — *Twombly, Benjamin* ..... Nov 15

Dynamic mechanical rheological testing: a versatile tool for the elastomer lab — *Luckenbach, Thomas* ..... Mar 13

High structure tread carbon black solves technical compounding problems — *Swor, Ronald S., Hess, William, and Micek, Edward* ..... Mar 18

High structure tread carbon black solves technical compounding problems—II — *Swor, Ronald S., Hess, William, and Micek, Edward* ..... Apr 30

High temperature elastomeric materials tested for geothermal BOP applications — *Parker, Bruce G., and Raines, Charles C.* ..... May 18

ARTICLES, FEATURE (cont.)

HMW polyether polyols yield improved PU cast elastomers and sealants — *Reisch, John W., and Capone, Deborah M.* ..... Apr 18

HNBR exhibits dynamic properties well-suited for timing belt use — *Klingender, R.C., and Bradford, W.G.* ..... Aug 10

A "How-To" for cost accounting the preparation of elastomeric compounds — *Mastromatteo, Richard* ..... Oct 35

Infrared inspections provide preventive maintenance, saving time and money — *Feit, Edward* ..... Jan 24

Language of quality control: a glossary of terms and ideas — *Reynolds, Mike* Nov 18

Low-cost production, niche marketing are keys to success for tire industry — *Will, Thomas* ..... Feb 22

Maintaining high productivity and quality: six steps American companies can take — *Goodfellow, Matthew* ..... May 30

Modest growth predicted for North American synthetic rubber demand — Feb 24

Naval sonar transducers use elastomers as encapsulants — *Ting, Robert Y.* .... Oct 26

1990 Editorial Index ..... Jan 38

Nitrogen-free accelerator reduces nitrosamine content of rubber — *Stevenson, A., and Virdi, R.S.* ..... Jun 22

Plastics processing equipment can be modified for quality TPE production — *Richwine, John R.* ..... Sep 21

Polyurethane processors to see new growth opportunities in 1991 — *Davis, Tom* ..... Feb 18

Raw materials market foresees new products, growth potential in 1991 — *Ohm, Robert* ..... Feb 14

Recycling of polyurethane scrap yields a new injection-moldable product — *Allen, Richard C., and Cloutier, Oscar H.* ..... Oct 30

Recycling tires in rubber asphalt paving yields cost, disposal benefits — *Takallou, H. Barry, and Takallou, Mojie B.* Jul 19

RIM polyurethane elastomer components provide flexibility and weight savings — ..... Apr 28

Road to a compounding impasse is paved with good intentions — *Grossman, Richard F.* ..... Dec 25

Robotic test system for raw materials yields high volume at reasonable cost — *Ivory, John* ..... Jan 19

Rubber industry expected to weather challenge of economic downturn — *Cole, Thomas E.* ..... Feb 16

Rubber-based single-ply roofing exhibits flexibility and durability — *Jablonowski, Thomas L., and Peterson, Arnold G.* ..... Jun 30

Silicone rubber seals prove flexible, durable in variety of custom blends — ... Feb 26

Single-ply roofing membrane proves durable in challenging applications — .... Aug 18

Specialty elastomers meet emerging needs for underhood applications — *Dunn, J.R.* ..... Jan 15

Technical innovation in the 1990s will involve manufacturing, not products — *Moloney, Noel* ..... Feb 20

Testing reveals fluorosilicone elastomers are well suited for alternative fuel use — *Virant, Mark S., and Oust, Robert M.* ..... May 24

Thermoplastic elastomer categories: a comparison of physical properties — *Legge, N.R.* ..... Sep 14

TPU enhances strength of fabric used in military assault rafts — ..... Jan 22

Underhood elastomers market shifts to high performance materials — *Mongiello, Joseph* ..... Jan 11

Using Scartigen as an extender or filler can significantly lower compounding cost — *Shlauter, Mary* ..... Mar 25

Vandenberg reflects on past career, looks forward to better elastomers — *Holman, Curt* ..... Aug 21

Weathering resistance and paint adhesion make TPUs ideal for auto applications — *Chen, Augustin T., McClellan, T. Roy, Ray, Rebecca L., and Groseth, Cindy K.* ..... Sep 9

"World's smallest custom mixer" tackles big compounding problems — *Holman, Curt* ..... Jul 26

AUTHORS

Allen, Richard C. (Mobay) — *Recycling of polyurethane scrap yields a new injection-moldable product* ..... Oct 30

Bowtell, Maurice (see Euronews) — .... Jan 7, Feb 8, Mar 11, Apr 7, May 8, Jun 6, Jul 6, Aug 5, Sep 5, Oct 6, Nov 9, Dec 9

Bradford, W.G. (Zeon Chemicals) — *HNBR exhibits dynamic properties well-suited for timing belt use* ..... Aug 10

Brainard, Gary L. (Clevite Elastomers) — *Clevite's automated mixing system improves quality, cost and reliability* .. Jun 16

Capone, Deborah M. (Olin) — *HMW polyether polyols yield improved PU cast elastomers and sealants* ..... Apr 18

Chen, Augustin T. (Olin) — *Weather resistance and paint adhesion make TPUs ideal for auto applications* ..... Sep 9

Cloutier, Oscar H. (Jones & Vining) — *Recycling of polyurethane scrap yields a new injection-moldable product* ..... Oct 30

Cole, Thomas E. (RMA) — *Rubber industry expected to weather challenge of economic downturn* ..... Feb 16

Davis, Tom (PMA) — *Polyurethane processors to see new growth opportunities in 1991* ..... Feb 18

Del Vecchio, R.J. (consultant) — *Continuous Improvement methods stand out in "New Age" of quality control* . Nov 23

Dunn, J.R. (Polysar) — *Specialty elastomers meet emerging needs for underhood applications* ..... Jan 15

Feit, Edward — *Infrared inspections provide preventive maintenance, saving time and money* ..... Jan 24

Gerspacher, Michel (Sid Richardson) — *Carbon black is a fractal object: an advanced look at an important filler* .. Apr 35

Goodfellow, Matthew (University Research Center) — *Maintaining high productivity and quality: six steps American companies can take* ..... May 30

Groseth, Cindy K. (Dow Chemical) — *Weather resistance and paint adhesion make TPUs ideal for auto applications* Sep 9

Grossman, Richard F. (Synthetic Products) — *The road to a compounding impasse is paved with good intentions* Dec 25

Grossman, Richard F. (see Q&A) — .... Jan 27, Feb 30, Mar 38, Apr 42, May 38, Jun 36, Jul 38, Aug 29, Sep 30, Oct 40, Nov 32, Dec 33

Hermansen, Ralph D. (Formula Research Services) — *Computers offer savings, diversity in formulating elastomeric compounds* ..... Dec 22

Hertz, Daniel L. (Seals Eastern) — *An analysis of rubber under strain from an engineering perspective* ..... Dec 14

Hess, William (Columbian Chemicals) — *High structure tread carbon black solves technical compounding problems* ..... Mar 18

Hess, William (Columbian Chemicals) — *High structure tread carbon black solves technical compounding problems—II* ..... Apr 30

Holman, Curt (*Elastomerics*) — *Vandenberg reflects on past career, looks forward to better elastomers* ..... Aug 21

Holman, Curt (*Elastomerics*) — *"World's smallest custom mixer" tackles big compounding problems* .... Jul 26

Ivory, John (Hounsfield Test Equipment) — *Robotic test system for raw materials yields high volume at reason-*

Editorial Index

Elastomerics

Volume 122-1991 — Numbers 1-12

Editor's note: This year's index covers material from the January 1991 through December 1991 issues of Elastomerics. *Each entry is followed by the month and the page number of the issue in which it appears.*

Articles can be found under the Article subject heading and other appropriate subject headings. Authors are listed under the Author subject heading. Trends are listed in that subject heading and appropriately cross-referenced.

Subject headings include Articles, Authors, Automotive, Carbon Black, Chemicals and Materials, Custom Mixing, Editor's Desk, End Products, Environment, Equipment, Euronews, Expansions, IISRP, Last Word, Literature, Market Studies, Meetings, Mergers, Natural Rubber, Polyurethane Manufacturers Association (PMA), Polyurethanes, Quality, Recycling, Roofing, Rubber Division ACS, Rubber Manufacturers Association (RMA), Thermoplastic Elastomers, Tires and Trends.

A

ARTICLES, FEATURE

Analysis of rubber under strain from an engineering perspective — *Hertz, Daniel L.* ..... Dec 14

Automating batch control systems improves quality and increases efficiency — *Wenstrup, Robert* ..... Mar 32

Automobile truck tires adapt to increasingly stringent requirements — *Dunn, J.R., and Jones, R.H.* ..... Jul 11

Buffer storage system provides FIFO rotation of rubber tape stock — ..... Jul 25

Carbon black is a fractal object: an advanced look at an important filler — *Gerspacher, Michel, and O'Farrell, Charles P.* ..... Apr 35

Clevite's automated mixing system improves quality, cost and reliability — *Brainard, Gary L., and Sok, Robert M.* Jun 16

Computers offer savings, diversity in formulating elastomeric compounds — *Hermansen, Ralph D.* ..... Dec 22

Continuous Improvement methods stand out in "New Age" of quality control — *Del Vecchio, R.J.* ..... Nov 23

Design of castable PU parts requires precise materials characterization — *Palinkas, Richard* ..... Apr 24

DMA provides characterization of damping and elastomeric properties — *Twombly, Benjamin* ..... Nov 15

Dynamic mechanical rheological testing: a versatile tool for the elastomer lab — *Luckenbach, Thomas* ..... Mar 13

High structure tread carbon black solves technical compounding problems — *Swor, Ronald S., Hess, William, and Micek, Edward* ..... Mar 18

High structure tread carbon black solves technical compounding problems—II — *Swor, Ronald S., Hess, William, and Micek, Edward* ..... Apr 30

High temperature elastomeric materials tested for geothermal BOP applications — *Parker, Bruce G., and Raines, Charles C.* ..... May 18

ARTICLES, FEATURE (cont.)

HMW polyether polyols yield improved PU cast elastomers and sealants — *Reisch, John W., and Capone, Deborah M.* ..... Apr 18

HNBR exhibits dynamic properties well-suited for timing belt use — *Klingender, R.C., and Bradford, W.G.* ..... Aug 10

A "How-To" for cost accounting the preparation of elastomeric compounds — *Mastromatteo, Richard* ..... Oct 35

Infrared inspections provide preventive maintenance, saving time and money — *Feit, Edward* ..... Jan 24

Language of quality control: a glossary of terms and ideas — *Reynolds, Mike* Nov 18

Low-cost production, niche marketing are keys to success for tire industry — *Will, Thomas* ..... Feb 22

Maintaining high productivity and quality: six steps American companies can take — *Goodfellow, Matthew* ..... May 30

Modest growth predicted for North American synthetic rubber demand — Feb 24

Naval sonar transducers use elastomers as encapsulants — *Ting, Robert Y.* .... Oct 26

1990 Editorial Index ..... Jan 38

Nitrogen-free accelerator reduces nitrosamine content of rubber — *Stevenson, A., and Virdi, R.S.* ..... Jun 22

Plastics processing equipment can be modified for quality TPE production — *Richwine, John R.* ..... Sep 21

Polyurethane processors to see new growth opportunities in 1991 — *Davis, Tom* ..... Feb 18

Raw materials market foresees new products, growth potential in 1991 — *Ohm, Robert* ..... Feb 14

Recycling of polyurethane scrap yields a new injection-moldable product — *Allen, Richard C., and Cloutier, Oscar H.* ..... Oct 30

Recycling tires in rubber asphalt paving yields cost, disposal benefits — *Takallou, H. Barry, and Takallou, Mojie B.* Jul 19

RIM polyurethane elastomer components provide flexibility and weight savings — ..... Apr 28

Road to a compounding impasse is paved with good intentions — *Grossman, Richard F.* ..... Dec 25

Robotic test system for raw materials yields high volume at reasonable cost — *Ivory, John* ..... Jan 19

Rubber industry expected to weather challenge of economic downturn — *Cole, Thomas E.* ..... Feb 16

Rubber-based single-ply roofing exhibits flexibility and durability — *Jablonowski, Thomas L., and Peterson, Arnold G.* ..... Jun 30

Silicone rubber seals prove flexible, durable in variety of custom blends — ... Feb 26

Single-ply roofing membrane proves durable in challenging applications — .... Aug 18

Specialty elastomers meet emerging needs for underhood applications — *Dunn, J.R.* ..... Jan 15

Technical innovation in the 1990s will involve manufacturing, not products — *Moloney, Noel* ..... Feb 20

Testing reveals fluorosilicone elastomers are well suited for alternative fuel use — *Virant, Mark S., and Oust, Robert M.* ..... May 24

Thermoplastic elastomer categories: a comparison of physical properties — *Legge, N.R.* ..... Sep 14

TPU enhances strength of fabric used in military assault rafts — ..... Jan 22

Underhood elastomers market shifts to high performance materials — *Mongiello, Joseph* ..... Jan 11

Using Scartigen as an extender or filler can significantly lower compounding cost — *Shlauter, Mary* ..... Mar 25

Vandenberg reflects on past career, looks forward to better elastomers — *Holman, Curt* ..... Aug 21

Weathering resistance and paint adhesion make TPUs ideal for auto applications — *Chen, Augustin T., McClellan, T. Roy, Ray, Rebecca L., and Groseth, Cindy K.* ..... Sep 9

"World's smallest custom mixer" tackles big compounding problems — *Holman, Curt* ..... Jul 26

AUTHORS

Allen, Richard C. (Mobay) — *Recycling of polyurethane scrap yields a new injection-moldable product* ..... Oct 30

Bowtell, Maurice (see Euronews) — .... Jan 7, Feb 8, Mar 11, Apr 7, May 8, Jun 6, Jul 6, Aug 5, Sep 5, Oct 6, Nov 9, Dec 9

Bradford, W.G. (Zeon Chemicals) — *HNBR exhibits dynamic properties well-suited for timing belt use* ..... Aug 10

Brainard, Gary L. (Clevite Elastomers) — *Clevite's automated mixing system improves quality, cost and reliability* .. Jun 16

Capone, Deborah M. (Olin) — *HMW polyether polyols yield improved PU cast elastomers and sealants* ..... Apr 18

Chen, Augustin T. (Olin) — *Weather resistance and paint adhesion make TPUs ideal for auto applications* ..... Sep 9

Cloutier, Oscar H. (Jones & Vining) — *Recycling of polyurethane scrap yields a new injection-moldable product* ..... Oct 30

Cole, Thomas E. (RMA) — *Rubber industry expected to weather challenge of economic downturn* ..... Feb 16

Davis, Tom (PMA) — *Polyurethane processors to see new growth opportunities in 1991* ..... Feb 18

Del Vecchio, R.J. (consultant) — *Continuous Improvement methods stand out in "New Age" of quality control* . Nov 23

Dunn, J.R. (Polysar) — *Specialty elastomers meet emerging needs for underhood applications* ..... Jan 15

Feit, Edward — *Infrared inspections provide preventive maintenance, saving time and money* ..... Jan 24

Gerspacher, Michel (Sid Richardson) — *Carbon black is a fractal object: an advanced look at an important filler* .. Apr 35

Goodfellow, Matthew (University Research Center) — *Maintaining high productivity and quality: six steps American companies can take* ..... May 30

Groseth, Cindy K. (Dow Chemical) — *Weather resistance and paint adhesion make TPUs ideal for auto applications* Sep 9

Grossman, Richard F. (Synthetic Products) — *The road to a compounding impasse is paved with good intentions* Dec 25

Grossman, Richard F. (see Q&A) — .... Jan 27, Feb 30, Mar 38, Apr 42, May 38, Jun 36, Jul 38, Aug 29, Sep 30, Oct 40, Nov 32, Dec 33

Hermansen, Ralph D. (Formula Research Services) — *Computers offer savings, diversity in formulating elastomeric compounds* ..... Dec 22

Hertz, Daniel L. (Seals Eastern) — *An analysis of rubber under strain from an engineering perspective* ..... Dec 14

Hess, William (Columbian Chemicals) — *High structure tread carbon black solves technical compounding problems* ..... Mar 18

Hess, William (Columbian Chemicals) — *High structure tread carbon black solves technical compounding problems—II* ..... Apr 30

Holman, Curt (*Elastomerics*) — *Vandenberg reflects on past career, looks forward to better elastomers* ..... Aug 21

Holman, Curt (*Elastomerics*) — *"World's smallest custom mixer" tackles big compounding problems* .... Jul 26

Ivory, John (Hounsfield Test Equipment) — *Robotic test system for raw materials yields high volume at reason-*

AUTHORS (cont.)
able cost ..... Jun 19
Jablonowski, Thomas L. (Uniroyal Chemical) — *Rubber-based single-ply roofing exhibits flexibility and durability* ..... Jun 30
Klingender, R.C. (Zeon Chemicals) — *HNBR exhibits dynamic properties well-suited for timing belt use* ..... Aug 10
Legge, N.R. (consultant) — *Thermoplastic elastomer categories: a comparison of physical properties* ..... Sep 14
Luckenbach, Thomas A. (Rheometrics) — *Dynamic mechanical rheological testing: a versatile tool for the elastomer lab* ..... Mar 13
Mastromatteo, Richard (Cri-Tech) — *A "How-To" for cost accounting the preparation of elastomeric compounds* Oct 35
McClellan, T. Roy (UTI) — *Weather resistance and paint adhesion make TPUs ideal for auto applications* ..... Sep 9
Micek, Edward (Columbian Chemicals) — *High structure tread carbon black solves technical compounding problems* ..... Mar 18
Micek, Edward (Columbian Chemicals) — *High structure tread carbon black solves technical compounding problems—II* ..... Apr 30
Moloney, Noel (Dunlop) — *Technical innovation in the 1990s will involve manufacturing, not products* ..... Feb 20
Mongiello, Joseph (Business Communications) — *Underhood elastomers market shifts to high performance materials* ..... Jan 11
Ohm, Robert (R.T. Vanderbilt) — *Raw materials market foresees new products, growth potential in 1991* ..... Feb 14
Oust, Robert M. (Dow Corning STI) — *Testing reveals fluorosilicone elastomers are well suited for alternative fuel use* ..... May 24
Palinkas, Richard (Uniroyal) — *Design of castable PU parts requires precise materials characterization* ..... Apr 24
Parker, Bruce G. (Cooper Oil Tool Div., Cameron Elastomer Technology) — *High temperature elastomeric materials tested for geothermal BOP applications* ..... May 18
Peterson, Arnold G. (JPS Elastomerics) — *Rubber-based single-ply roofing exhibits flexibility and durability* ..... Jun 30
Raines, Charles C. (Cooper Oil Tool Div., Cameron Elastomer Technology) — *High temperature elastomeric materials tested for geothermal BOP applications* ..... May 18
Ray, Rebecca L. (Dow Chemical) — *Weather resistance and paint adhesion make TPUs ideal for auto applications* Sep 9
Reisch, John W. (Olin) — *HMW polyether polyols yield improved PU cast elastomers and sealants* ..... Apr 18
Reynolds, Michael J. (Akzo Chemicals) — *The language of quality control: a glossary of terms and ideas* ..... Nov 18
Richwine, John R. (Advanced Elastomer) — *Plastics processing equipment can be modified for quality TPE production* ..... Sep 21
Shlauter, Mary (consultant) — *Using Scartigen as an extender or filler can significantly lower compounding cost* . Mar 25
Sok, Robert M. (Skinner Engine) — *Clevite's automated mixing system improves quality, cost and reliability* ..... Jun 16
Stevenson, A. (Robinson Brothers) — *Nitrogen-free accelerator reduces nitrosamine content of rubber* ..... Jun 22
Swor, Ronald A. (Columbian Chemicals) — *High structure tread carbon black solves technical compounding problems* ..... Mar 18
Swor, Ronald A. (Columbian Chemicals) — *High structure tread carbon black solves technical compounding problems—II* ..... Apr 30
Ting, Robert Y. (U.S. Naval Research Laboratory) — *Naval sonar transducers use elastomers as encapsulants* ..... Oct 26
Twombly, Benjamin (Perkin-Elmer) — *DMA provides characterization of damping and elastomeric properties* ... Nov 15
Virant, Mark S. (Dow Corning) — *Testing reveals fluorosilicone elastomers are well suited for alternative fuel use* ..... May 24
Virdi, R.S. (Robinson Brothers) — *Nitrogen-free accelerator reduces nitrosamine content of rubber* ..... Jun 22

AUTHORS (cont.)
Wenstrup, Robert (Allen-Bradley) — *Automating batch control system improves quality and increases efficiency* Mar 32
Will, Thomas (Goodyear) — *Low-cost production, niche marketing are keys to success for tire industry* ..... Feb 22
AUTOMOTIVE
EMU offers course in automotive rubber Aug 4
HNBR exhibits dynamic properties well-suited for timing belt use ..... Aug 10
Rubber Consultants conference provides global review of automotive elastomers ..... May 8
Specialty elastomers meet emerging needs for underhood applications ..... Jan 15
Underhood elastomers market shifts to high performance materials ..... Jan 11
West European auto market set to grow Jan 10

B-C

CARBON BLACK
Cabot, Deza establish venture ..... Jul 9
Carbon black is a fractal object: an advanced look at an important filler ..... Apr 35
High structure tread carbon black solves technical compounding problems ..... Mar 18
High structure tread carbon black solves technical compounding problems—II . Apr 30
New plant to be built in S. Korea ..... May 12
Witco brings on stream new unit ..... Jul 9
CHEMICALS & MATERIALS
Binding agent (Beugnet) ..... Jan 31
Butyl polymer (Exxon Chemical) ..... Apr 40
Cellular urethane (Rogers) ..... Feb 36
Compounding materials (Pluess-Stauffer) ..... Dec 34
Cure activator (Struktol) ..... Jul 30
Elastomeric resin (East Coast Distribution Co.) ..... Nov 38
Equipment coating (Air Products) ..... Mar 40
Fluoroelastomer (3M) ..... Aug 31
Fluoroelastomer (3M) ..... Dec 34
Fluoroelastomer filler (3M) ..... Mar 40
High-performance plastic (Hoechst Celanese) ..... Nov 38
Latex binder (Unocal) ..... Nov 38
Medical TPUs (Mobay) ..... Nov 38
Membrane system (Firestone) ..... May 40
Mold cleaning agents (George Mann) ... Dec 35
Mold release (Frekote Div., Dexter) .... Feb 36
Mold treatment (Solvenite Process) ..... Sep 32
Moldable urethane (E.A.R.) ..... Jun 38
Molding compounds (BMC) ..... Jul 30
Molding steel (Edro Engineering) ..... Dec 34
Pelletized butyl rubber (Hardman) ..... Jan 31
Plasticizer (Harwick Chemical) ..... Jul 30
Powder dips (C.P. Hall) ..... Dec 35
Pressure detecting film (Sensor Products) ..... Sep 32
Process aids (Struktol) ..... Jun 38
PU elastomers (Bolidt Synthetic Products) ..... Jan 31
Pulp reinforcers (Du Pont) ..... Feb 36
Release agent (George Mann) ..... Apr 40
Release agents (Deco-Coat Div., Resins) Jan 31
Resin system (Conap) ..... Nov 38
Roofing elastomer (Shell Chemical) .... Jan 31
Rubber flotation coating (Development Associates) ..... Aug 31
Saturated latex (Goodyear) ..... Nov 38
Silicas (Tulco) ..... Aug 31
Silicon-modified polyethers (Union Carbide) ..... Aug 31
Silicone foam (GE Silicones) ..... Nov 38
Silicone rubbers (Loctite VSI) ..... Jun 38
Stabilizers (Dover Chemical) ..... Dec 34
Thermoset polyurethane (Cabot Enterprises) ..... Feb 36
Tire filler (E.R. Carpenter) ..... Jul 30
Tooling elastomer (Dow Corning) ..... Apr 40
TPE series (Sarlink) ..... Sep 32
TPU additive (Morton) ..... Dec 34
Urethane elasomer (Cal Polymers) ..... Nov 38
Urethane gel (FBC) ..... May 40
Urethane systems (Cal Polymers) ..... Dec 34
Urethanes (Conap) ..... Dec 34
Wear resistant coating (Carolina Coating Technologies) ..... Dec 34
CUSTOM MIXING
A "How-To" for cost accounting the preparation of elastomeric compounds Oct 35
"World's smallest custom mixer" tackles big compounding problems ..... Jul 26

D-E

EDITOR'S DESK
Accidentally on purpose ..... Nov 2
As fragile as the air ..... Jan 2
The best messenger ..... Dec 3
The "comfort compound" ..... May 2

EDITOR'S DESK (cont.)
The discovery of rubber ..... Oct 2
The human factor ..... Mar 2
The importance of equipment ..... Jun 2
In a pinch ..... Apr 2
Independence and responsibility ..... Jul 2
Innovative "things" ..... Aug 2
The mysterious "double dip" ..... Sep 2
An uncertain year ..... Feb 2
END PRODUCTS
Cup mounts (Aeroflex) ..... Jul 30
Elastomer seals (Chomerics) ..... Nov 39
Elastomer-coated gaskets (Chomerics) . Aug 31
Fuel diaphragms (Dowty) ..... Jun 38
Isolators (Barry Controls) ..... Dec 35
Roof coating (Pioneer Randustrial) ..... Sep 32
Roofing system (Firestone) ..... Jun 38
Roofing system (Goodyear) ..... Jun 38
Sponge sheet (CHR Division, Furon) ... Nov 38
ENVIRONMENT
ACGIH votes against MOCA reclassification ..... Dec 11
Legislators propose tax for waste tire disposal ..... Sep 7
Panel opposes MOCA reclassification .. Nov 11
PMA looks to future at anniversary meeting ..... Jun 4
EQUIPMENT
Air pumps (Neoterik) ..... Dec 35
Alarm system (Contrologic) ..... Jan 32
Aluminum block ovens (Lawler) ..... Aug 32
Analyzing system (Antek Instruments) . Jan 35
Automating batch control systems improves quality and increases efficiency Mar 32
Bale cutter (Fogg and Young) ..... Sep 33
Bench scales (Arlyn Scales) ..... May 40
Bench scales (Arlyn Scales) ..... Nov 39
Bench-top test chamber (SES) ..... Feb 37
Block heater (Rubber Industries) ..... Aug 31
Caliper (Mitutoyo) ..... Jul 30
Catheter dipping system (ACC Automation) ..... Jan 32
Clevite's automated mixing system improves quality, cost and reliability ..... Jun 16
Column injector (Shimadzu) ..... Mar 41
Combination pumps (Rexroth) ..... Mar 40
Compact press (Rep) ..... Aug 31
Compact sensor (Williamson) ..... Jan 32
Compactor (Futurity Marketing) ..... Jun 39
Compounding extruder (Leistritz) ..... Jun 39
Compression press (Battenfeld) ..... Aug 32
Conveyor oven (Grieve) ..... Jun 39
Counting scales (Circuits and Systems) . Nov 39
Coupling device (Scientific Molding) ... Sep 33
Data collector (Quality Measurement System) ..... Nov 39
Density instrument (C.W. Brabender) .. Dec 35
Digital analyzer (Kernco Instruments) .. Dec 36
Digital durometer (Testing Machines) .. May 41
DMA provides characterization of damping and elastomeric properties ... Nov 15
Dynamic mechanical rheological testing: a versatile tool for the elastomer lab .. Mar 13
Euromap survey covers rubber machinery market ..... Jul 10
Extensometer (Lloyd Instruments) ..... Sep 32
Extruder (Wayne) ..... Mar 40
Extruder (Wayne) ..... Aug 32
Extruders (Genca) ..... Jul 30
Extrusion control system (Measurex) ... Feb 37
Fiber rheometer (Carter Baker) ..... Jan 35
Flowmeters (McMillan) ..... Jun 39
Gas sensor (GMD Systems) ..... Mar 41
Granulators (Ball & Jewell) ..... Feb 37
Granulators (Ball & Jewell) ..... Jun 38
Guillotine cutter (Spadone) ..... Aug 31
Heat cleaning oven (ACE) ..... Jan 31
High pressure filters (Parker Hannifin) Dec 36
Infrared gauge (Applications Techniques) ..... Jan 32
Infrared inspections provide preventive maintenance, saving time and money . Jan 24
Infrared thermometer (Kernco) ..... Jan 32
Injection molder (Krauss-Maffei) ..... Feb 37
Injection molders (Battenfeld) ..... Jan 35
Injection press (Rep) ..... Feb 37
Ink jet printer (Wiedenbach) ..... Jul 30
In-line mixer (Mixing Equipment) ..... Jan 35
Italian rubber machine industry shows growth ..... Aug 8
Lab dispenser (Edge-Sweets/PTI) ..... Feb 36
Laboratory mixer (American Triad) .... Sep 32
Low measuring force instrument (Mitutoyo) ..... Dec 35
Measuring cell (Mettler) ..... May 41
Metering system (Budzar Industries) .... Jan 32
MHIA opens Tire Machinery Division . Dec 13
Micrometer (Mitutoyo) ..... Mar 41
Mixing extruder (Custom Scientific Instruments) ..... Jan 35
Mobile reactor (Corning) ..... Jun 40
Molding machine (Gluco) ..... May 40
Molding presses (Rep) ..... Jan 32

EQUIPMENT (cont.)
Molding presses (Wabash Metal Products) ..... Nov 39
Molding robots (Battenfeld) ..... Apr 40
Molding system (Spuhl Anderson) ..... Jun 39
Operator terminal (Rep) ..... Dec 36
Plant reactors (American Reactor) ..... Jun 39
Plasma surface treater (Enercon) ..... Dec 36
Plastics processing equipment can be modified for quality TPE production . Sep 21
Portable monitor (GMD Systems) ..... Aug 31
Power converter (Avtron) ..... Feb 37
Process analyzer (Corvallis) ..... Jun 38
Process computer (Draiswerke) ..... May 41
Processor (Littleford) ..... Feb 37
Reactors (American Reactor) ..... Feb 36
Reclaiming extruders (Davis-Standard) . Feb 36
Rheogoniometer (Mitech) ..... Jul 30
Robotic test system for raw materials yields high volume at reasonable cost . Jun 19
Robotics testing system (Hounsfield) ... Mar 40
Rubber and plastic mixer (KSBI) ..... Jan 33
Rubber cutter (Mitchell) ..... Jun 39
Rubber cutter (Mitchell) ..... Aug 31
Sample molder (CSI) ..... Apr 40
Scanning electron microscope (ISI) ..... Jan 35
Screw extruders (Killion Extruders) ..... May 40
Screw feeder (Vibra Screw) ..... Apr 40
SEM microscope (ISI) ..... Dec 35
Shaft processor (FCF-Bowers) ..... Apr 40
Size reduction system (Air Products) ... Sep 32
Spectrometer (Perkin-Elmer) ..... Mar 40
Stirred reactors (PPI) ..... Jan 37
Stress melt rheometer (Bohlin Reologi) Sep 32
Surface probes (Tegam Inc.) ..... Dec 35
Temperature and humidity cabinet (Blue M Electric) ..... Dec 36
Temperature control system (S & B Controls) ..... Dec 35
Temperature controller (Total Temperature Instrumentation) ..... Jan 35
Temperature controller (TTI) ..... Jul 30
Tensile test system (United Calibration) Jan 32
Test controller (Schenck Pegasus) ..... May 40
Testing instruments (TA Instruments) .. Feb 36
Testing system (Lloyd Instruments) ..... Feb 38
Testing system (Zwick of America) ..... Dec 36
Thermal analysis instrument (Mettler) .. Mar 40
Thermal analysis software (Perkin-Elmer) ..... Jul 30
Thermometer (Raytek) ..... Feb 36
Thermometers (Kernco Instruments) .... Jul 31
Thickness gauge (Xecutex) ..... Jul 31
Transducer (Rheometrics) ..... Dec 35
Transfer presses (Wabash) ..... Feb 37
Turbulent mixer (Draiswerke) ..... Feb 37
Twin screw extruder (Kobelco Stewart Bolling) ..... Mar 40
Twin screw extruder (Kobelco Stewart Bolling) ..... May 40
Vacuum pump (Vortec) ..... Dec 35
Viscometer (Brookfield) ..... Aug 32
Viscometer (Fisons Instruments) ..... Nov 39
Weathering tester (Q-Panel) ..... Apr 40

EURONEWS
Advanced Elastomer Systems launched into growing TPE marketplace ..... Apr 7
Belgian conference covers latest thermoplastic elastomer applications ..... Jun 6
Belgian PRI conference focuses on ethylene propylene-based polymers ..... Jul 6
Environmental issues, tires and future elastomer trends emphasized at ikt '91 Sep 5
ikt showcases best products of rubber producers worldwide ..... Aug 5
Interplas '90 showcases innovative technology and environmental issues ..... Feb 8
MRPRA wins PRI Prince Philip award for earthquake safety research ..... Jan 7
Polyurethanes World Congress reflects growing interest in versatile material .. Dec 9
PRI conference emphasizes elastomers in extreme conditions ..... Oct 6
PRI Offshore Engineering Group focuses on seals for oilfield uses ..... Mar 11
Rapra meeting examines the future of elastomers in oil field applications ..... Nov 9
Rubber Consultants conference provides global review of automotive elastomers ..... May 8

EXPANSIONS
Advanced Elastomers expands TPE output ..... Nov 14
BASF opens plant, expects TPU gains . Nov 12
Construction begins on EniChem rubber plant ..... Apr 13
Indonesia expands rubber shoe exports Nov 13
Monsanto to modernize facilities worldwide ..... Feb 12
New carbon black plant to be built in S. Korea ..... May 12
Witco brings on stream new carbon black unit ..... Jul 9

F-G-H-I-J-K

IISRP
Comments on butadiene standard ..... Mar 8
Develops guidelines for returnable containers ..... Jun 9
Meeting focuses on environmental issues ..... Apr 4

L

LAST WORD
Evolution of tire design methods: from slide rules to super computers — *Stephens, Dick, and Luchini, J.R.* ..... Jul 41
Industry evolution requires commitment on both intellectual and emotional level — *Del Vecchio, R.J.* ..... Feb 41
Seals and molded products suppliers must adapt to changing market trends — *Adams, Harold* ..... Aug 34
The natural rubber dichotomy: raw material vs. agricultural commodity — *Getzinger, W. Pete* ..... Jun 42

LITERATURE
Additives handbook (Drew) ..... Jan 36
Alternative fuel materials guide (Dow Corning STI) ..... Dec 37
Analytical instruments (Antek Instruments) ..... Jul 31
Autoclaves (United McGill) ..... Jul 31
Batch process software (Easton Systems) ..... Nov 40
Blended TPEs (Ellis Horwood) ..... Jun 40
Blowmolding practices (SPI) ..... Jun 40
Capabilities brochure (Struktol) ..... Mar 41
Characterization methodology (ACS) .. Apr 41
Chemical additives (Degussa) ..... Sep 33
Chemicals (Ashland Chemical) ..... Mar 41
Clarifying agents (ICI Polymer Additives) ..... Sep 33
Computer formulation method (Noyes) Aug 32
Custom molding capabilities (Controlled Rubber Products) ..... Dec 37
Custom packaging system (West) ..... Sep 33
Cutter/feed systems (Versa Machinery) Feb 39
Data collection software (Quality Measurement) ..... Feb 38
Dip molding (Steere Enterprises) ..... Jan 37
Dispensing system (Liquid Control) ..... Aug 32
Distributor products (Fluke) ..... Feb 39
Eliminating CFCs (SPI) ..... Jun 40
Engineering software (Rapra Technology) ..... Jan 36
Extender oils (Exxon) ..... Jan 36
Extensometers (MTS Systems) ..... Jan 37
Extrusion control (Eurotherm) ..... Jul 31
Extrusion system manual (Komax Systems) ..... Jun 40
Fabric Consumption in Tire and Rubber Production (RMA) ..... Feb 38
Feeder and cutter machines (VMI Americas) ..... Dec 36
Flammability Handbook of Plastics (Technomic) ..... Jan 36
Fluid mixing (Lightnin) ..... Feb 38
Fluoroelastomer catalog ..... Dec 36
Fluoroelastomer compounding (Cri-Tech) ..... May 41
Fluoroelastomer cost savings (Cri-Tech) Mar 41
Gloves (Ansell Edmont) ..... Aug 32
Hazard law handbook (Clark Boardman) ..... May 41
Incinerators (FECO) ..... Feb 39
Industrial hoses (Semperit) ..... Nov 40
Industrial pumps (Cherry-Burrell) ..... Feb 39
Industrial seals (Freudenberg-NOK) .... Sep 33
Industrial silanes (Huls America) ..... Apr 41
Injection molding (Battenfeld) ..... Mar 41
Injection Molding Process Control Training Program (Paulson) ..... Feb 38
Instrumentation catalog (Ohmart) ..... Jun 40
Instruments catalog (Kernco Instruments) ..... Jan 36
Isocyanate (American Cyanamid) ..... Jul 31
Japan's chemicals (DJK) ..... Feb 39
Lab mill (Draiswerke) ..... Feb 39
Materials testing (Instron) ..... Jan 37
Metering pumps (Barmag) ..... Mar 41
Metering services (Dopag) ..... May 41
Microwave methodologies (CEM) ..... Dec 36
Mixer drives (Lightnin) ..... Dec 37
Mixing equipment (Liquid Control) ..... Dec 37
Mixer services (Lightnin) ..... Apr 41
Mixing systems (Littleford Bros.) ..... Feb 39
Modeling software (Simulation Sciences) ..... Jun 40
Modifiers in PU elastomers (Monsanto) Aug 32
Mold making guide (Conap) ..... Sep 33
Molding compounds (Degussa) ..... Feb 39
Molding processes (Materials Information) ..... Aug 32
Moldmaker directory (SPI) ..... Feb 38
Moldmaking process (W.S. Holmes) .... Jul 31

LITERATURE (cont.)
MSDS software (Easton Industrial Data Systems) ..... Dec 37
Plastics catalog (Technomic) ..... Jun 40
Plastics consultant (Maro) ..... Jan 36
Plastics database (IPS) ..... Jun 40
Plastics handbook (Van Nostrand Reinhold) ..... May 41
Polyacrylate rubber (Cyanamid) ..... Feb 38
Polymer guides (Du Pont) ..... Jan 36
Polymer processor (Freudenburg-NOK) Apr 41
Polymer research (ChemTec) ..... Dec 36
Polyurethane products (Dow Plastics) .. Aug 32
Polyurethane reports (Technomic) ..... Apr 41
Polyurethanes handbook (John Wiley & Sons) ..... Apr 41
Pressure transducers (IP²) ..... Sep 33
Process control software (Murphy Software) ..... Feb 38
Proelement software (Intellibase) ..... Jan 36
PU prepolymer (Dow Chemical) ..... Feb 39
Pump delivery (Proportioneer) ..... Feb 39
Recovery systems (Siva International) .. Jan 37
Resistance database (Ides) ..... Jul 31
Rheological testing (Rheometrics) ..... Feb 38
Rheometric capillary die (C.W. Brabender) ..... Jan 37
Roofing systems (Firestone) ..... Nov 40
Rubber handbook (R.T. Vanderbilt) .... Feb 39
Sample analysis (Autoclave Engineers) . Jan 37
Silicone materials (Arlon) ..... Aug 32
Silicone properties (Silicone Rubber Right Products) ..... Sep 33
Silicone rubber (Arlon) ..... Mar 41
Silicone rubber (Wacker Silicones) ..... Nov 40
Specialty additives (Air Products) ..... Mar 41
SPI directory (SPI) ..... Nov 40
Temperature chamber (Instron) ..... Jul 31
Temperature controllers (Burling Instruments) ..... Mar 41
Temperature controls (Fenwal) ..... Nov 40
Testing facilities (Schenck Pegasus) ..... Dec 37
3M Elastomer Selection and Design Guide (3M) ..... Jan 36
Thermal analysis catalog (Perkin Elmer) May 41
Thermal management (Tecknit) ..... Jan 37
Thermoset rheology (Rheometrics) ..... Sep 33
Thickness gauges (F.E. Randall) ..... Sep 33
Tire publications catalog (RMA) ..... Dec 37
Toughened plastics (ACS) ..... May 41
Transfer molding software ..... Nov 40
Twin extruder (Leistritz) ..... Dec 37
Ventilators (Coppus Engineering) ..... Nov 40
Viscometer (Brookfield) ..... Jan 37
Viscometers (Brookfield) ..... Mar 41
Water-based release agents (Air Products) ..... Jul 31
Water-soluble resins (Noyes) ..... Nov 40

M

MARKET STUDIES
Alloy/blend study forecasts expansion . Nov 14
Battelle is conducting TPE evaluation program ..... Jan 9
CDC releases elastomer roofing products study ..... May 13
Elastomers in hose use studied by Gabris ..... Dec 12
Euromap survey covers rubber machinery market ..... Jul 10
Extender, filler demand to be $1.2 billion by 94 ..... Jan 9
Hull releases study of modifier markets Nov 13
Italian rubber machine industry shows growth ..... Aug 8
Low-cost production, niche marketing are keys to success for tire industry .... Feb 22
Modest growth predicted for North American synthetic rubber demand .... Feb 24
Polyurethane processors to see new growth opportunities in 1991 ..... Feb 18
Rapra develops polymer, rubber-related projects ..... Jul 10
Raw materials market foresees new products, growth potential in 1991 .... Feb 14
RC studies scrap tires, Eastern Europe rubber ..... Jul 9
Report foresees rubber production growth ..... Mar 10
RMA estimates rubber roofing activity for '92 ..... Apr 13
Rubber industry expected to weather challenge of economic downturn ..... Feb 16
Smithers releases East European tire report ..... Feb 10
Soviet tire industry weathers political chaos ..... Nov 13
Technical innovations in the 1990s will involve manufacturing, not products .. Feb 20
Underhood elastomers market shifts to high performance materials ..... Jan 11
West European auto market set to grow Jan 10

MEETINGS
Automotive Rubber Technology I (Sept. 10-Nov. 19) ..... Aug 4
ASTM Committee Meeting F-9 on Tires (Nov. 6-8) ..... Aug 3
Educational Seminar on Scrap Tire Management (Sept. 6-7) ..... Nov 7
Elastomers in Engineering Design (Sept. 30-Oct. 4) ..... Jul 5
Energy Rubber Group courses (May 13-24) ..... Apr 4
Gordon Research Conference on Elastomers (July 8-12) ..... May 6
ikt '91 (June 24-27) ..... Aug 5, Sep 5
Interplas '90 (Nov. 19-23, 1990) ..... Feb 8
K'92 (Oct. 29-Nov. 5, 1992) ..... Apr 6
Mixing of Rubber Compounds (Apr. 16-18) ..... Mar 6
Mold Expo (Oct. 7-10) ..... Dec 8
NPE '91 (June 17-21) ..... May 6
Plastics and Rubber Institute (July 9-10) Oct 6
Plastics and Rubber Institute—Belgian section (Apr. 16-17) ..... Jan 5, Jun 6, Jul 6
Plastics and Rubber Institute—Offshore Engineering Group (Dec. 14, 1990) .... Mar 11
Polyurethanes World Congress (Sept. 24-26) ..... Dec 9
Rapra Technology (Sept. 9-10) ..... Aug 3, Nov 9
Rubber Consultants conference (March 22) ..... May 8
Rubber Technology in the Oil Industry (Sept. 24-25) ..... Aug 3
SPE seminars (March 5-7) ..... Feb 6
Symposium on Wear and Friction of Elastomers (Dec. 4) ..... Nov 7
Tire Dynamic Behavior and its Impact on Vehicle Dynamics (Sept. 30-Oct. 2) Sep 4
Tire Society meeting (March 24-25, 1992) ..... Aug 3
TPE '91 (Feb. 13-15) ..... Jan 5, Apr 4, Apr 5
TPE Europe '91 (Oct. 22-23) ..... Sep 3
Utech '92 (Mar. 31-Apr. 2, 1992) ..... Nov 8
MERGERS, ACQUISITIONS AND VENTURES
Air Products acquires Cyanaprene elastomers ..... Sep 7
Air Products purchases PURA International ..... Mar 10
Air Treads Japan formed to supply aircraft tires ..... Apr 13
Cabot, Deza establish carbon black venture ..... Jul 9
Chem-Trend acquires Perma-Mold agents ..... Oct 9
Conti reports sales, closing, joint venture ..... Nov 11
Crossville, Plastivar merge technologies Nov 12
C.U.E. acquires CORfine urethane facility ..... Mar 8
Danco and Plastimatic merge molding firms ..... Jun 9
Dexter, Solvay launch D&S Plastics Int'l Apr 13
Dowty group acquires Silcofab Elastomers ..... Jan 9
Exxon acquires complete ownership of SOCABU ..... Sep 8
Goodyear Roofing joins forces with Domtar ..... Aug 8
JM Clipper Polymers acquires Acadia assets ..... Sep 8
Mark IV acquires hose product manufacturer ..... Jan 10
Monsanto, Exxon form new TPE business ..... Mar 8
New carbon black plant to be built in S. Korea ..... May 13
Polysar Gulf Coast merges with Mobay Sep 8
Shin-Etsu and Novacor form joint venture ..... Oct 9
3M, Daikin, plan joint fluorochemical venture ..... Apr 13

N

NATURAL RUBBER
Goodyear develops safe shipping system Oct 9
IRSG papers cover NR and synthetic topics ..... May 6
Malaysian rubber scheme revised ..... Dec 13
MRPRA wins PRI Prince Philip award for earthquake safety research ..... Jan 7
Nitrogen-free accelerator reduces nitrosamine content of rubber ..... Jun 22

P

POLYURETHANE MANUFACTURERS ASSOCIATION
ACGIH votes against MOCA reclassification ..... Dec 11
PMA (cont.)
Fall meeting (Oct. 26-30) ..... Sep 3
Panel opposes MOCA reclassification .. Nov 11
Seminars see record attendance ..... Aug 4
Spring meeting (Apr. 14-17) ..... Mar 6, Jun 4
POLYURETHANES
ACGIH votes against MOCA reclassification ..... Dec 11
Air Products acquires Cyanaprene elastomers ..... Sep 7
Air Products purchases PURA International ..... Mar 10
BASF opens plant, expects TPU gains . Nov 12
Baumann named new chairman of PURRC ..... Nov 14
Design of castable parts requires precise materials characterization ..... Apr 24
Enhances strength of fabric used in military assault rafts ..... Jan 22
HMW polyether polyols yield improved cast elastomers and sealants ..... Apr 18
Naval sonar transducers use elastomers as encapsulants ..... Oct 26
Panel opposes MOCA reclassification .. Nov 11
Processors to see new growth opportunities in 1991 ..... Feb 18
PURRC to recycle, recover ..... Jan 9
Recycling of polyurethane scrap yields a new injection-moldable product ..... Oct 30
RIM polyurethane elastomer components provide flexibility and weight savings ..... Apr 28
Utech '92 features polyurethane papers Nov 8
Weather resistance and paint adhesion make TPUs ideal for auto applications Sep 9
World Congress reflects growing interest in versatile materials ..... Dec 9

Q

QUALITY
Continuous Improvement methods stand out in "New Age" of quality control . Nov 23
Language of quality control: A glossary of terms and ideas ..... Nov 18
Maintaining high productivity and quality: Six steps American companies can take ..... May 1

R

RECYCLING
Adpol obtains rights for reclaim rubber process ..... Jul 9
ATR patents scrap tire reclamation process ..... Sep 7
IISRP develops guidelines for returnable containers ..... Jun 9
Legislators propose tax for waste tire disposal ..... Sep 7
National Rubber Recycling launched ... Dec 11
ODOT recycling rubber tires in asphalt blacktop ..... Sep 7
PURRC to recycle, recover polyurethanes ..... Jan 9
Rapra develops polymer, rubber-related projects ..... Jun 9
RC studies scrap tires, Eastern Europe rubber ..... Jul 9
Recycling tires in rubber asphalt paving yields cost, disposal benefits ..... Jul 19
Scrap tire conference covers methods ... Nov 7
Survey finds TDF best scrap tire use .... Dec 11
ROOFING
CDC releases elastomer products study May 13
Goodyear Roofing joins forces with Domtar ..... Aug 8
RMA estimates rubber activity for '92 . Apr 13
Rubber-based single-ply roofing exhibits flexibility and durability ..... Jun 30
Single-ply membrane proves durable in challenging applications ..... Aug 18
RUBBER DIVISION, ACS
Applied Rheology in Rubber Processing (Oct. 6-8) ..... Sep 3
Basic Compounding and Processing of Rubber (Sept. 17-19) ..... Aug 3
Honors Vandenberg at technical meeting in Toronto ..... May 14
139th meeting, Toronto (May 21-24) ... May 14, Jul 4
140th technical meeting and expo (Oct. 8-11) ..... Feb 6, Oct 10, Dec 5
Rubber Technology Workshop (Oct. 7-8) ..... Sep 3
Technical session: New Commercial Developments (May 19-22, 1992) ..... Oct 4
Vandenberg reflects on past career, looks forward to better elastomers ..... Aug 21
Rubber Manufacturers Association (RMA)
RUBBER DIVISION (cont.)
Estimates rubber roofing activity for '92 Apr 13
Postpones dues increase ..... Nov 13

S-T

SILICONES
Rubber seals prove flexible, durable in variety of custom blends ..... Feb 26
Testing reveals fluorosilicone elastomers are well suited for alternative fuel use May 24
THERMOPLASTIC ELASTOMERS
Advanced Elastomers expands output .. Nov 14
BASF opens plant, expects TPU gains . Nov 12
Belgian conference covers latest applications ..... Jun 6
Battelle is conducting evaluation program ..... Jan 9
Categories: a comparison of physical properties ..... Sep 9
Debut at TPE Europe '91 ..... Sep 3
Enhances strength of fabric used in military assault rafts ..... Jan 22
Monsanto, Exxon form new business ... Mar 8
Plastics processing equipment can be modified for quality production ..... Sep 21
Weather resistance and paint adhesion make TPUs ideal for auto applications Sep 9
TIRES
ASTM committee plans retread tire functions ..... Aug 3
ATR patents scrap tire reclamation process ..... Sep 7
Automobile, truck tires adapt to increasingly stringent requirements ..... Jul 11
Continental recommends against Pirelli merger ..... Mar 8
General expects growth in weak 1991 economy ..... Mar 10
Goodyear debuts tire for wet weather .. Dec 12
Goodyear develops low rolling resistance tire ..... Sep 8
IRRDB report includes improved truck tires ..... Dec 13
Legislators propose tax for waste tire disposal ..... Apr 7
Low-cost production, niche marketing are keys to success for industry ..... Feb 22
MHIA opens Tire Machinery Division . Dec 13
National Rubber Recycling launched ... Dec 11
ODOT recycling rubber tires in asphalt blacktop ..... Sep 8
RC studies scrap tires, Eastern Europe rubber ..... Jul 9
Recycling in rubber asphalt paving yields cost, disposal benefits ..... Jul 19
Scrap tire conference covers recycling methods ..... Nov 7
Soviet industry weathers political chaos Nov 13
STL signs to develop non-pneumatic tire test ..... Nov 12
Survey finds TDF best scrap tire use .... Dec 11
Technical innovation in the 1990s will involve manufacturing, not products .. Feb 20
Tire Society calls for papers ..... Aug 3
UCCE holds dynamics course ..... Sep 4
TRENDS
ACGIH votes against MOCA reclassification ..... Dec 11
Adpol obtains rights for reclaim rubber process ..... Jul 9
Advanced Elastomers expands TPE output ..... Nov 14
Air Products acquires Cyanaprene elastomers ..... Sep 7
Air Products purchases PURA International ..... Mar 10
Air Treads Japan formed to supply aircraft tires ..... Apr 13
Alloy/blend study forecasts expansion . Nov 14
ATR patents scrap tire reclamation process ..... Sep 7
BASF opens plant, expects TPU gains . Nov 12
Battelle is conducting TPE evaluating program ..... Jan 9
Baumann named new chairman of PURRC ..... Nov 14
Burke Rubber moves to Modesto ..... Aug 8
Cabot, Deza establish carbon black venture ..... Jul 9
CDC releases elastomer roofing products study ..... May 13
Chem-Trend acquires Perma-Mold agents ..... Oct 9
Construction begins on EniChem rubber plant ..... Apr 13
Conti reports increase in first quarter sales ..... Jul 10
Conti reports sales, closing, joint venture ..... Nov 11
Continental recommends against Pirelli merger ..... Mar 8
Continental votes to reject Pirelli bid ... May 13

TRENDS (cont.)

Cooper Tire reports record sales, earnings ..... Dec 11
Crosville, Plastivax merge technologies ..... Nov 12
C.U.E. acquires CORfine urethane facility ..... Mar 8
Danco and Plastimatic merge molding firms ..... Jun 9
Dexter, Solvay launch D & S Int'l ..... Apr 13
Dowty group acquires Silcofab Elastomers ..... Jan 9
Du Pont wins National Medal of Technology ..... Jan 9
Elastomers in hose use studied by Gabris ..... Dec 12
Euromap survey covers rubber machinery market ..... Jul 10
Extender, filler demand to be $1.2 billion by 1994 ..... Jan 9
Exxon acquires complete ownership of SOCABU ..... Sep 8
General expects growth in weak 1991 economy ..... Mar 10
Goodyear debuts tire for wet weather ..... Dec 12
Goodyear develops low rolling resistance tire ..... Sep 8
Goodyear develops safe NR shipping system ..... Nov 9
Goodyear names Enidine air springs distributor ..... Jul 9
Goodyear names Gault new chairman and CEO ..... Aug 8
Goodyear roofing joins forces with Domtar ..... Aug 8
Goodyear to sell polyester business ..... Nov 12
Hull releases study of modifier markets ..... Nov 13
IISRP comments on butadiene standard ..... Mar 8
IISRP develops guidelines for returnable containers ..... Jun 9
Indonesia expands rubber shoe exports ..... Nov 13
IRRDB report includes improved truck tires ..... Dec 13
Italian rubber machine industry shows growth ..... Aug 8
JM Clipper Polymers acquires Acadia assets ..... Sep 8
Legislators propose tax for waste tire disposal ..... Sep 9
Malaysian economy affects rubber industry ..... May 13
Malaysian rubber scheme revised ..... Dec 13
Mark IV acquires hose product manufacturer ..... Jan 10
Mexican trade debate includes petrochemicals ..... Jun 9
MHIA opens Tire Machinery Division ..... Dec 13
Mobile center offers on-site testing ..... Aug 8
Monsanto, Exxon form new TPE business ..... Mar 8
Monsanto to modernize facilities worldwide ..... Feb 12
National Rubber Recycling launched ..... Dec 11
New carbon black plant to be built in S. Korea ..... May 12
1990 chemical sales to total $263 billion ..... Feb 12
ODOT recycling rubber tires in asphalt blacktop ..... Sep 8
Panel opposes MOCA reclassification ..... Nov 11
Polymer curriculum awards announced ..... Dec 12
Polysar Gulf Coast merges with Mobay ..... Sep 8
Polysar picks Akron as sales, technical center ..... May 12
PURRC to recycle, recover polyurethanes ..... Jan 9
Rapra develops polymer, rubber-related projects ..... Jul 10
RC studies scrap tires, Eastern Europe rubber ..... Jul 9
Report foresees rubber production growth ..... Feb 10
RMA estimates rubber roofing activity for '92 ..... Apr 13
RMA postpones dues increase ..... Nov 13
Rubber Consultants has active year ..... May 12
Shin-Etsu and Novacor form joint venture ..... Oct 9
Smithers releases East European tire report ..... Feb 10
Soviet tire industry weathers political chaos ..... Nov 13
STL signs to develop non-pneumatic tire test ..... Nov 12
Survey finds TDF best scrap tire use ..... Dec 11
3M, Daikin plan joint fluorochemical venture ..... Apr 13
U. of Akron dedicates polymer building ..... Jun 9
Wayne County Rubber opens for business ..... Dec 13
West European auto market set to grow ..... Jan 10
Witco brings on stream new carbon black unit ..... Jul 9

U-V-W-X-Y-Z

FOR SALE

VALVE PROBLEMS ?

VALV-TROL • SINCLAIR COLLINS VALVES

NEW • USED • REPAIRS • PARTS

Call... **216/434-4006**

FAX 216/434-4948

DURBIN

INDUSTRIAL VALVE REPAIRS

FOR SALE

RUBBER INJECTION MACHINES

(6) Lewis V60 12"x12" 13.8 in³ shot

(2) Lewis V100 14"x14" 23.8 in³ shot

COMERIO-ERCOLE Mill 60" x 22" unitized w/motorized roll adj.

Water Cooling & Air Drying Line

(2) FJELLMAN 42" x 42" 882 ton

EEMCO 24" x 24" 300 ton, Slab

EEMCO 24" x 24" 450 ton, Slab

FM130D LITTLEFORD Mixer

60" x 66" 226T 4 Post, w/controls

60" x 66" 340T 4 Post, w/controls

AUTOCLAVES, Built to your specs, steam or electric, COMPETITIVELY PRICED.

GOODMAN Slug cutters, slitter, cutter

OVER 100 PRESSES IN INVENTORY CALL:

ICON INDUSTRIES, INC.

616-241-1877 FAX 616-241-5578

Cash paid for Entire Plants or Individual Pieces

OHIO RACK CORP.

We buy and sell used pallet racks for tires 5'x5', corner post & center post, and all types of straight racks Nationwide

Call (800) 344-4164

(216) 823-8200

FAX (216) 823-8136

SERVICES

Call 404-843-7367
Liza Jones
To Place Your Classified
Ad In ELASTOMERICS.

Practical Help For Small Rubber Companies

- **COVERED ROLLS**
- **MOLDED GOODS**
- **EXTRUSIONS**
- **COMPOUNDING & MIXING**
- **EMPLOYEE TRAINING**
- **PLANT START-UP**

Call, write or fax for a brochure.

J.L. MERRYFIELD, INC.

5127 Duban Ave., Orlando, FL 32812

Phone: 407-855-4838 Evenings

Fax: 407-855-5658 Anytime

"Understanding Small Rubber Companies Since 19"

Advertising Index

Burgess Pigment Company 28

E. I. DuPont de Nemours C2-1

Exxon Chemical Co. C4

C. P. Hall Company C3

Wabash Metal Products Co. 24

WSF Industries, Inc. 13